

Product Datasheet

ATP7b Antibody - BSA Free

NB100-361

Unit Size: 0.1 ml

Store at -20C. Avoid freeze-thaw cycles.

www.novusbio.com



technical@novusbio.com

Publications: 3

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB100-361

Updated 2/21/2025 v.20.1

Earn rewards for product
reviews and publications.

Submit a publication at www.novusbio.com/publications

Submit a review at www.novusbio.com/reviews/destination/NB100-361



NB100-361

ATP7b Antibody - BSA Free

Product Information

Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	165 kDa

Product Description

Host	Rabbit
Gene ID	540
Gene Symbol	ATP7B
Species	Human, Rat, Mouse (Negative)
Reactivity Notes	Does not appear to react in mouse species.
Immunogen	A synthetic peptide made to an internal sequence near the C-terminus of human ATP7b. [UniProt# P35670]

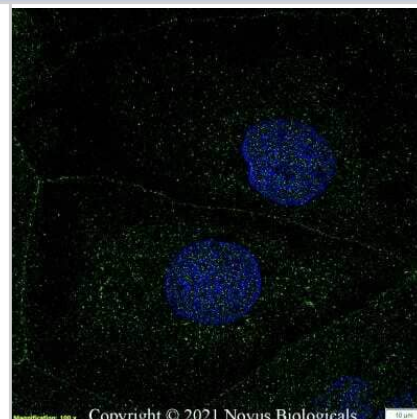
Product Application Details

Applications	Western Blot, Immunocytochemistry/ Immunofluorescence
Recommended Dilutions	Western Blot 1:1000, Immunocytochemistry/ Immunofluorescence 1:10-1:2000
Application Notes	This ATP7b antibody is useful for Immunocytochemistry/Immunofluorescence and Western blot. By WB, this antibody recognizes a band at 165 kDa, representing ATP7b. This antibody also recognizes a band at ~220 kDa. This antibody may work on endogenous protein in immunohistochemistry, but it has only been tested on transfected ovarian carcinoma cells at a 1:500 dilution. However, NB100-360 may demonstrate less background for this assay.

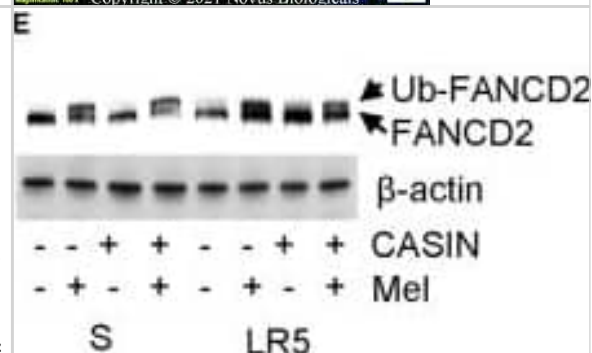


Images

Immunocytochemistry/Immunofluorescence: ATP7b Antibody [NB100-361] - Caco-2 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.05% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti-ATP7b Antibody NB100-361 at 2 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



Western Blot: ATP7b Antibody [NB100-361] - Effects & mechanism of action of CASIN on melphalan-resistant MM cells. (A) CASIN reduces Cdc42 activity (Cdc42-GTP) but not Rac1 activity (Rac1-GTP). Melphalan-sensitive MM cells (S) were treated with Vehicle or CASIN (5 μ M) for 8 h. Cdc42 & Rac1 activities were measured using pull-down assay. (B) CASIN (5 μ M) inhibits proliferation of both S & melphalan-resistant (LR5) MM cells. **P < 0.01 vs. S-Vehicle; ###P < 0.01 vs. LR5-Vehicle. (C) CASIN (5 μ M) preferentially causes apoptosis of melphalan-resistant MM cells. S & LR5 cells were treated with or without CASIN or melphalan (Mel, 25 μ M) or both for 2 days. Annexin V+ cells were analyzed using flow cytometry. **P < 0.01. (D–F) Mechanism of action of CASIN on melphalan-resistant MM cells. (D) Cdc42 activity & expression are increased in LR5 cells compared to that in S cells. Cdc42 activity was measured using pull-down assay. β -Actin was used as loading control. Vertical lines indicate the gel lanes being switched in position from the original blots. (E) CASIN (5 μ M) decreases melphalan-induced FANCD2 mono-ubiquitination (Ub-FANCD2) in LR5 but not in S cells. S & LR5 cells were treated with or without CASIN, Mel (25 μ M), or both for 16 h. FANCD2 was detected using western blotting. β -Actin was used as loading control. (F) CASIN sensitizes melphalan-resistant but not -sensitive MM cells to melphalan-induced DNA damage. γ H2A histone family member X-positive (γ H2AX+) cells were detected using flow cytometry. **P < 0.01. Error bars represent means \pm SD of triplicates & data are representative of three independent experiments. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/31632904>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Nguyen P, Chakrabarti J, Li Y et al Rational Targeting of Cdc42 Overcomes Drug Resistance of Multiple Myeloma. *Frontiers in Oncology* 2019-10-01 [PMID: 31632904] (WB, Human)

Yoshizawa K, Nozaki S, Kitahara H et al. Copper efflux transporter (ATP7B) contributes to the acquisition of cisplatin-resistance in human oral squamous cell lines. *Oncol Rep.* 2007-10-01 [PMID: 17786364] (WB, Human)

Guo, Y et al. NH2-terminal signals in ATP7B Cu-ATPase mediate its Cu-dependent anterograde traffic in polarized hepatic cells. *Am J Physiol Gastrointest Liver Physiol*;289(5):G904-16. 2005-11-01 [PMID: 15994426] (WB, Rat, Human)

Procedures

Immunohistochemistry protocol for ATP7b Antibody (NB100-361)

ATP7b Antibody:

Immunohistochemistry Procedure

Cell Preparation (At least 108 cells were used per block)

1. Harvesting cells:

A. Trypsinization

B. 15 minute centrifugation at 2,500 RPM

C. PBS rinse

D. 15 minute centrifugation at 2,500 RPM

2. Suspend cells in 10 ml of 10% formaldehyde in PBS, overnight @ RT.

3. Centrifuge cells at 2,500 RPM for 10 minutes.

4. Resuspend cells in 10 ml of 70% ethanol.

5. Centrifuge cells at 2,500 RPM and taken into 70% ethanol.

Cell Staining

1. Ribbon Thickness: 5 μ m

2. Deparaffination Agent: Xylin

3. Hydration: Ethanol in PBS

4. Blocking:

A. endogeneous peroxidase: 0.3% H₂O₂ in PBS for 10 minutes

B. endogeneous protein: 1% BSA for 20 minutes

6. Primary antibody, polyclonal anti-ATP7b (NB 100-361): 1:500, overnight @ 4 degrees Celcius

7. Secondary antibody, anti-rabbit (HRP): (dilute per manufacturer recommendation), 30 minutes @ RT

8. Wash 3x 15 minutes

9. Chromogen: AEC

10. Counterstain: Mayers hematoxylin





Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NB100-361

NBL1-07848	ATP7b Overexpression Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NB100-361

Earn gift cards/discounts by submitting a publication using this product:
www.novusbio.com/publications

